

Amendment to the Claims:

This listing of claims will replace all prior listing of claims in this application.

Listing of Claims:

CLAIMS

1. (Currently amended) An ECR plasma chamber (1) comprising:
an enclosure immersed in a magnetic configuration resulting from the superposition of ~~two magnetic fields, one~~ an axial magnetic field and ~~the other~~ a radial magnetic field, wherein ~~the configuration of the~~ electron trajectories depends on ~~said the~~ magnetic configuration[[,]]; and
~~characterized in that it comprises~~ at least one moderator (100) ~~whose~~ having a position and shape ~~are chosen as a function of said~~ in relation to the magnetic configuration ~~so~~ such that ~~said the~~ at least one moderator (100) constitutes an obstacle to electrons whose energy is greater than a predetermined energy.
2. (Currently amended) The ECR plasma chamber according to claim 1, ~~characterized in that~~ wherein the position and number of ~~said the~~ at least one moderator ~~moderators~~ (100) within the magnetic configuration ~~are chosen as a function of~~ relates to the energy and the number of electrons to which an obstacle is required.
3. (Currently amended) The ECR plasma chamber according to claim 1 ~~or claim 2,~~ ~~characterized in that the materials constituting~~ wherein the materials of construction of the at least one moderators (100) ~~are chosen as a function of their aptitude to~~ moderator comprises materials that produce secondary electrons when they are subjected to collisions with high-energy electrons.
4. (Currently amended) The ECR plasma chamber according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein the radial magnetic field ~~has~~ includes $2n$ poles and the at least one moderator (100) ~~has~~ includes n active portions (7) each of which is placed in a respective one of ~~the~~ n branches formed by the electron trajectories.

5. (Currently amended) The ECR plasma chamber according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that said~~ wherein the at least one moderator (100) comprises at least one active portion (7) and a ring (6) encircling the plasma.
6. (Currently amended) The ECR plasma chamber according to claim 5, ~~characterized in that said~~ wherein the active portion (7) ~~takes the form of~~ comprises a cylindrical rod placed radially located in a transverse plane of the plasma chamber (1), wherein with ~~one~~ a first end of the rod ~~pointing~~ points toward ~~the~~ a central region (3) of the plasma chamber (1) and ~~the other~~ a second end of the rod is fixed to ~~said~~ the ring (6).
7. (Currently amended) The ECR plasma chamber according to claim 5, ~~characterized in that said~~ wherein the at least one active portion (7) is mounted at the end of a support rod, and wherein the support rod ~~which~~ is itself fixed to ~~said~~ the ring (6).
8. (Currently amended) The ECR plasma chamber according to ~~any one of claims 1 to 7~~ claim 1, ~~characterized in that~~ wherein at least a portion of the at least one moderator (100) ~~has~~ comprises a metal ~~parts~~ structure.
9. (Currently amended) The ECR plasma chamber according to ~~any one of claims 1 to 7~~ claim 1, ~~characterized in that~~ wherein at least a portion of the at least one moderator (100) ~~has~~ comprises a ceramic ~~parts~~ structure.
10. (Currently amended) An ECR ion source comprising an ECR plasma chamber according to ~~any one of claims 1 to 9~~ claim 1.
11. (Currently amended) An ECR plasma machine comprising an ECR plasma chamber according to ~~any one of claims 1 to 9~~ claim 1.